



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-1139; Product Identifier 2018-SW-056-AD]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA is proposing to adopt a new airworthiness directive (AD) for certain serial-numbered Leonardo S.p.a. (Leonardo) Model A109S and AW109SP helicopters. This proposed AD would require installing a placard in the baggage compartment, revising the existing Rotorcraft Flight Manual (RFM) for your helicopter, and inspecting the installation of the terminal lugs. Depending on the outcome of the inspection, this proposed AD would require restoring the installation of the terminal lugs. This proposed AD would also require modifying the helicopter to shim the baggage fairing assy (fwd up) away from the circuit breaker panel and incorporating protective coverings. This proposed AD was prompted by reports of several occurrences of fire ignition and smoke in the baggage compartment. The actions of this proposed AD are intended to address an unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <https://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-1139; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD, any comments received, any service information that is incorporated by reference, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed rule, contact Leonardo S.p.a. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://www.leonardocompany.com/en/home>. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

FOR FURTHER INFORMATION CONTACT: Kristin Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email Kristin.Bradley@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2020-1139; Product Identifier 2018-SW-056-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Kristi Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email kristin.bradley@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA Emergency AD No. 2018-0120-E, dated May 29, 2018 (EASA AD 2018-0120-E), to correct an unsafe condition for Leonardo S.p.a. (formerly Finmeccanica S.p.A., AgustaWestland S.p.A., Agusta S.p.A.) Model A109S and AW109SP helicopters. EASA advises that an occurrence was reported on an AW109SP helicopter, experiencing fire ignition and smoke in the baggage compartment. The investigation determined the event was due to chafing of electrical wiring and further analysis indicated that due to similarity of design, this event could also occur on A109S helicopters. Accordingly, the EASA AD requires modification of the affected baggage fairing assembly (fwd up) part number (P/N) 109-0344-31-101 and temporarily amending the existing RFM and installing a placard prohibiting carrying any loads in the baggage compartment.

After EASA AD 2018-0120-E was issued, a second occurrence was reported of fire ignition and smoke in the baggage compartment, and as a precautionary measure Leonardo Helicopters issued a series of emergency alert service bulletins, providing instructions to prevent damage of electrical assemblies in the baggage compartment. Accordingly, EASA issued, EASA Emergency No. 2018-0149-E, dated July 13, 2018 (EASA AD 2018-0149-E), which retains the requirements of EASA AD 2018-0120-E, and also requires repetitive inspections of the baggage compartment electrical assemblies and depending on the inspection outcomes, repairing or replacing certain parts. Also, EASA AD 2018-0149-E expands the applicability to include three additional serial-numbered helicopters, and requires a modification, which acts as a terminating action for the repetitive inspections. EASA advises, that this condition, if not corrected, could lead to fire in the baggage compartment, resulting in loss of control of the helicopter.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA of the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all information and determining the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs.

Related Service Information Under 1 CFR part 51

The FAA has reviewed Leonardo Helicopters Emergency Alert Service Bulletin (EASB) No. 109S-079, and Leonardo Helicopters EASB No. 109SP-120, each Revision A, and each dated June 4, 2018. This service information specifies instructions for manufacturing a placard for the baggage compartment door and also specifies instructions for modifying and inserting a specific cutout into the existing RFM. This service information also specifies instructions for removing the baggage fairing assembly (fwd up), and the rubber protections, inspecting the cable assemblies routing of both circuit breaker panels, and inspecting the installation of the terminal lugs.

The FAA also reviewed Leonardo Helicopters EASB No. 109SP-122, and Leonardo Helicopters EASB No. 109S-081, each dated July 5, 2018, which specify procedures for modifying the helicopter by incorporating protective coverings.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Proposed AD Requirements

This proposed AD would require compliance with certain portions of the manufacturer's service bulletin as well as, before further flight, for certain serial-numbered helicopters, installing a placard and revising the existing RFM for your helicopter. This proposed AD would also require within 5 hours time-in-service (TIS), for certain model helicopters, inspecting the installation of the terminal lugs, shimming the

installation of the baggage fairing assembly (fwd up), and installing a silicon rubber protection over the blind rivets of the hinge in accordance with certain applicable service information. This proposed AD would also require within 10 hours TIS and thereafter at intervals not to exceed 25 hours TIS until protective coverings are installed, removing the baggage fairing assembly (fwd up), removing the rubber protections, and inspecting the cable assembly routing of both circuit breaker panels for damage. Depending on the outcome of these inspections, this proposed AD would require repairing or replacing certain parts. This proposed AD would also require, within 200 hours TIS, modifying the helicopter to incorporate a certain protective coverings, which would provide a terminating action for the repetitive inspections.

Differences between this AD and the EASA AD

The EASA AD uses compliance times in terms of calendar dates, whereas this proposed AD uses compliance times terms of in hours TIS.

Costs of Compliance

The FAA estimates that this AD would affect 15 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this proposed AD. Labor costs are estimated at \$85 per work-hour.

Installing a placard and revising the existing RFM for your helicopter would require about 1 work-hour for an estimated cost of \$85 per helicopter and \$1275 for the U.S. fleet.

Inspecting the installation of the terminal lugs, shimming the baggage fairing assembly (fwd up), and installing a silicon rubber protection over the blind rivets removing the rubber protections would require about 3 work-hours for an estimated cost of \$255 per helicopter.

Removing the baggage fairing assembly (fwd up) and performing a repetitive inspection of the cable assemblies of both circuit breaker panels for damage would

require about 2 work-hours for an estimated cost of \$170 per helicopter per inspection cycle and \$2550 for the U.S. fleet per inspection cycle.

Repairing a cable assembly would require about 4 work-hours and parts would cost about \$340 for an estimated cost of \$680 per repair.

Modifying the helicopter by installing protective coverings would require about 4 work-hours and parts would cost about \$20 for an estimated cost of \$360 per helicopter and \$5400 for the U.S. fleet.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866,
2. Will not affect intrastate aviation in Alaska, and
3. Will not have a significant economic impact, positive or negative, on a number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Leonardo S.p.a.: Docket No. FAA-2020-1139; Product Identifier 2018-SW-056-AD.

(a) Applicability

This airworthiness directive (AD) applies to Leonardo S.p.a. Model A109S helicopters, serial number (S/N) 22702, 22703, 22705, and 22706 and AW109SP helicopters with S/N up to 22386 inclusive, except S/N 22375 and S/N 22376, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as chafing of electrical wiring. This condition could result in fire ignition and smoke in the baggage compartment and subsequent loss of control of the helicopter.

(c) Effective Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(e) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions

(1) For all helicopters, except Model A109S having S/N 22705 or S/N 22706 and Model AW109SP having S/N 22384, before further flight:

(i) Install a placard with the information in Figure 5 of Leonardo Helicopters Emergency Alert Service Bulletin (EASB) No. 109S-079 (EASB 109S-079), or Leonardo Helicopters EASB No. 109SP-120 (EASB 109SP-120), each Revision A, and each dated June 4, 2018, as applicable to your helicopter model, in the baggage compartment on the internal side of the baggage door D8.

(ii) Revise the existing Rotorcraft Flight Manual (RFM) for your helicopter by cutting along the dashed line of Figure 6 of EASB 109S-079 or EASB 109SP-120, as applicable to your model helicopter, and inserting the cutout to replace page 1-28 or 1-3, as applicable to your model helicopter, of the existing RFM for your helicopter.

(2) For all helicopters, except Model A109S having S/N 22705 or S/N 22706 and Model AW109SP having S/N 22384, within 5 hours time-in-service (TIS):

(i) Visually inspect the installation of the terminal lugs to determine whether the installation is consistent with Figure 2 of EASB 109SP-120 or EASB 109S-079, as applicable to your model helicopter. If the installation is not consistent with Figure 2 of EASB 109SP-120 or EASB 109S-079, as applicable to your model helicopter, restore the installation to be consistent with Figure 2 of EASB 109SP-120 or EASB 109S-079, as applicable to your model helicopter.

(ii) Shim the installation of the baggage fairing assembly (fwd up) P/N 109-0344-31-101 to move it away from the circuit breaker panel, and install a silicon rubber protection over the blind rivets of the hinge in accordance with the Accomplishment Instructions, Part II, steps 3 through 8 of EASB 109S-079 or EASB 109SP-120, as applicable to your model helicopter.

(3) Performing the steps as described in paragraph (f)(2) of this AD allows the RFM revision described in paragraph (f)(1) of this AD to be removed from the existing RFM for your helicopter and the placard described in paragraph (f)(1) of this AD to be removed from the helicopter.

(4) For all helicopters, within 10 hours TIS and thereafter at intervals not to exceed 25 hours TIS, remove the baggage fairing assembly (fwd up) P/N 109-0344-31-101, remove the rubber protections P/N 109-0746-52-105 and P/N 109-0746-52-107, and inspect the cable assemblies routing of both circuit breaker panels for damage. For the purposes of this inspection, damage may be indicated by chafing. If there is any damage, repair or replace the cables in accordance with FAA accepted procedures and protect the cables by installing Nomex sleeve P/N EN6049-006.

(5) For all helicopters, within 200 hours TIS, modify the helicopter's baggage compartment by adding the protective coverings in accordance with the Accomplishment Instructions, Part II, steps 3 through 14 of Leonardo Helicopters EASB No. 109SP-122, dated July 5, 2018 or Leonardo Helicopters EASB No. 109S-081, dated July 5, 2018, as applicable to your model helicopter. Completion of this modification is a terminating action for the 25 hour TIS repetitive inspections of paragraph (f)(4) of this AD.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Kristi Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood

Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-AVS-AIR-730-AMOC@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(h) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD No. 2018-0149-E, dated July 13, 2018. You may view the EASA AD on the Internet at <https://www.regulations.gov> in the AD Docket.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 5397, Fuselage Wiring, Baggage Fairings Modification.

Issued on December 16, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2020-28076 Filed: 12/18/2020 8:45 am; Publication Date: 12/21/2020]